

N•B•G•Q•A
National Building Granite
Quarries Association, Inc.

STONE GRANITE SPECS

SPECIFICATIONS FOR ARCHITECTURAL GRANITE

2011

Architectural Granite

Granite is one of the oldest, most durable and highly respected of building materials. Traditionally, it is the material chosen by architects, designers, owners and engineers when permanence, enduring color and texture, and complete freedom from deterioration and maintenance are prime requirements.

Granite is ageless – always contemporary. Today's leading architects, designers and owners understand its unique qualities and are using it more extensively than ever before. Many of our most impressive buildings residential, commercial, as well as institutional and monumental include granite as an integral part of both the design and the functionality. And it remains unequalled as a material for steps, terraces, and the paving of plazas and public spaces.

Granite offers many attractive, environmentally friendly attributes in addition to its timeless aesthetic qualities including: durability, low maintenance, recyclability, an enduring life-cycle, and low VOC's. Granite is nature's original sustainable building material. To further position granite as a preferred sustainable building material The National Building Granite Quarries Association, in conjunction with the Natural Stone Council, is working to educate the green building marketplace about the benefits of granite as a sustainable product. These initiatives include research and outreach activities, and the work to date can be found on www.GenuineStone.org, and click on Stone & the Environment.

The granite industry is keeping pace with architectural progress and changing demands. Technological developments have revolutionized quarrying and fabrication methods, reducing costs and leading to new applications. Attractive new finishes, new construction techniques and new jointing methods have created an abundance of options for building design and construction.

Reflecting these changes, the recommended specifications which follow have been completely revised and updated. Inquiries regarding any proposed use of granite, whether conventional or innovative, are invited by member companies of the association.

It is common practice in the industry to classify architectural granite as either of two types:

Building granite	Granite used either structurally or as a veneer for exterior or interior wall facings, steps, paving, copings or other building features.
Masonry granite	Granite used in larger blocks for retaining walls, bridge piers, abutments, arch stones and similar purposes.

The National Building Granite Quarries Association, Inc. has served the architectural profession for more than 80 years, and its member companies are acknowledged worldwide as the leaders in the industry. Collectively, these companies currently provide a major portion of the architectural granite produced in the United States.

TECHNICAL SUPPORT

These specifications, which supersede previous editions, are intended to provide standardization within the industry based on practices deemed to be acceptable from the standpoint of appearance, durability and safety. The Association does not recommend or endorse any modification which would result in these minimal specifications not being maintained on a particular project. The Association makes no representations or warranties with respect to appearance, durability or safety in the event of any variation from or failure to comply with these standards. As industry standards, the following information must also at all times be considered subject to architectural modifications in light of specific requirements of a particular project which may require more than these minimal specifications to achieve appropriate levels of appearance, durability and safety.

These specifications are intended to address the practices and performance criteria applicable to the supply of fabricated architectural granite products. It is beyond the scope of this document to address materials and procedures related to the granite supply such as installation, anchorage hardware, moisture control, etc. Member companies of the N.B.G.Q.A. have cooperated with the American Institute of Architects' Professional Systems Division in updating the Masterspec® 2004 "Dimensional Stone" specification section which addresses related items not included in this text.

Text throughout the specification that is italics and labeled "Comment" is not part of the reference standard, but is provided for information only.

The specification identifies certain information that should be provided by the specifying agency or purchaser.

DEFINITIONS OF TRADE TERMS AS USED IN THE SPECIFICATIONS

Arris	The sharp edge or exterior corner formed by the meeting of two surfaces, whether plane or curved.
Bed	a) The top or bottom horizontal surface of a piece, which is covered when the piece is set in place. b) A filled or open space extending horizontally between adjacent pieces set in place.
Face	The exposed major surface of the granite piece with its specified finish.
Head	The exposed surface of the jointed end of any given piece whose gauged dimension is not more than the minimum thickness of the material specified.
Joint	a) The end or side surface of a piece which is covered when the piece is set in place. b) A filled or open space extending vertically between adjacent pieces set in place.
Kerf	Slot cut into edge of granite piece with saw blade for insertion of anchor.
Quirk Miter	The right-angle exposure from the face of the jointed edge whose dimension is a recommended minimum of ¼". Polished finish on the quirk miter when the face is polished; honed when the face is honed; and diamond or sandblast finish when the face is thermal.
Rebated Kerf	Additional cut that countersinks kerf from back edge of kerf to back edge of granite piece for the purpose of additional anchor clearance. This is not a gauged cut and if used for a bearing surface, must be shimmed to allow for tolerance in cut.
Seam	A naturally filled or bonded crack which does not adversely affect the strength of a stone.
Start	The beginning of a crack, caused by quarrying, fabrication or handling.

These specifications were current at the time of publication but are subject to change. Please confirm the accuracy of these specifications with the N.B.G.Q.A.

For Information Contact: The National Building Granite Quarries Association; 1-800-557-2848 for technical assistance and/or information pertaining to the products and services provided by member companies.

Standard Specifications

1. GENERAL

1.1 Scope

This specification includes fabricated granite components required for the completion of granite work indicated by the contract documents.

1.2 Definition of Terms

The definition of terms used in these specifications shall be those published by the National Building Granite Quarries Association, Inc.

1.3 Source of Supply

All granite shall be obtained from quarries having adequate capacity and facilities to meet the specified requirements. Fabrication shall be by a firm equipped to process the material promptly in accordance with specifications. Evidence to this effect shall be provided by the supplier if required by the Design Professional.

1.4 Samples

Sufficient samples of granite shall be submitted to the Design Professional through the General Contractor.

1. Each sample set shall include three samples.
2. Sample set shall show anticipated range of color, natural variations of grain structure, inclusions and any other visual characteristics to be expected in the final installation.
3. Approved sample set shall establish the standard by which stonework will be judged.

1.5 Shop Drawings

The granite supplier shall submit: copies of required shop drawings to the Design Professional for approval. These drawings shall show all bedding, bonding, jointing and anchoring details, and the dimensions of each piece of granite. No final sizing or finishing shall be done until the shop drawings for that part of the work have been approved.

1.6 Defective Work

Any piece of granite showing manufacturing flaws upon receipt at the storage yard or building site shall be referred to the Design Professional for determination as to whether it shall be rejected, patched or redressed for use.

1.7 References

ASTM A 123-02: Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.
 ASTM C 97-02: Test Methods for Absorption and Bulk Specific Gravity of Dimension Stone.
 ASTM C 119-04: Terminology Relating to Dimension Stone
 ASTM C 170-90 (1999): Test Method for Compressive Strength of Dimension Stone
 ASTM C 615-03: Specification for Granite Dimension Stone
 ASTM C 880-98: Test Method for Flexural Strength of Dimensional Stone

1.8 Metric Conversions:

The following metric conversions shall apply where English measurements are indicated in the text:

- | | | | |
|-----------------------|---------------------|--------------------------|------------------------|
| 1. 1/16 inch (1.5 mm) | 6. 3/8 inch (10 mm) | 11. 1 1/4 inches (32 mm) | 16. 4 inches (102 mm) |
| 2. 1/8 inch (3 mm) | 7. 1/2 inch (13 mm) | 12. 1 1/2 inches (38 mm) | 17. 6 inches (152 mm) |
| 3. 3/16 inch (5 mm) | 8. 5/8 inch (16 mm) | 13. 1 5/8 inches (41 mm) | 18. 8 inches (203 mm) |
| 4. 1/4 inch (6 mm) | 9. 3/4 inch (19 mm) | 14. 2 inches (51 mm) | 19. 12 inches (305 mm) |
| 5. 5/16 inch (8 mm) | 10. 1 inch (25 mm) | 15. 3 inches (76 mm) | |

2. MATERIALS

2.1 Granite

A. Granite Standard: Granite shall comply with ASTM C 615, "Standard Specification for Granite Dimension Stone" for material characteristics, physical requirements, and sampling for selection of granite.

GENERAL: All granite shall be of standard architectural grade, free of cracks, seams, or starts, which may impair its structural integrity or function. Color or other visual characteristics indigenous to the particular material and adequately demonstrated in the sampling or mock-up phases will be accepted provided they do not compromise the structural or durability capabilities of the material. Texture and finish shall be within the range of samples approved by the Design Professional.

B. Granite: The specifying party shall provide the following information for each different granite or finish required:

1. Granite Variety
2. Location (use or application on the building)
3. Nominal Thickness: (identify the nominal thickness of each application in inches or mm)
4. Finish: (select one of the following)

a. Polished	e. Sawn, 6-cut	i. Pointed
b. Honed	f. Sawn, 8-cut	j. Rough cut finish
c. Fine rubbed finishes	g. Thermal	k. Split face
d. Sawn, 4-cut	h. Coarse stippled finish	

Comment: Commonly available finishes are defined as follows:

Polished: Mirror gloss, with sharp reflections.

Honed: Dull sheen, without reflections.

Fine rubbed: Smooth and free from scratches; no sheen.

Rubbed: Plane surface with occasional slight "trails" or scratches.

Shot ground: Plane surface with pronounced circular markings or trails having no regular pattern.

Thermal: Finish produced by application of high temperature flame to the surface. Large surfaces may have shadow lines caused by overlapping of the torch.

Sand blasted, coarse stippled: Coarse plane surface produced by blasting with an abrasive; coarseness varies with type of preparatory finish and grain structure of the granite.

Sand blasted, fine stippled: Plane surface, slightly pebbled, with occasional slight trails or scratches.

8-cut: Fine bush-hammered; interrupted parallel markings not over $\frac{3}{32}$ " apart; a corrugated finish, smoother near arris lines and on small surfaces.

6-cut: Medium bush-hammered finish, similar to but coarser than 8-cut, with markings not more than $\frac{1}{8}$ " apart.

4-cut: Coarse bush-hammered finish with same characteristics as 6-cut, but with markings not more than $\frac{7}{32}$ " apart.

Split Face: Surface resulting from breaking stone along a natural cleavage plane. Surface has projections and depressions; edges are not true.

Rock Face (or Rock Pitch): Similar to split face except face of stone at edge is pitched to achieve trued arris lines, thus creating bolder projections from the plane of the arris lines.

Pointed, Rough Sawn: A rough and uneven surface resulting from splitting, pointing and/or rough sawing the granite.

Comment: SPECIAL FINISHES of many kinds are also offered by members of the Association to meet special design requirements. Information and samples will gladly be supplied upon request.

3. FABRICATION

3.1 Dimensional Tolerance

Panel Thickness $\frac{3}{8}$ " or $\frac{1}{2}$ " (10 or 13 mm).....	$\pm\frac{1}{32}$ " (± 0.8 mm)
Panel Thickness $\frac{3}{4}$ " to $1\frac{5}{8}$ " (19 to 41 mm).....	$\pm\frac{1}{8}$ " (± 3 mm)
Panel Thickness Greater than $1\frac{5}{8}$ " (41 mm).....	$\pm\frac{1}{4}$ " (± 6 mm)
Panel Face Dimension.....	$\pm\frac{1}{16}$ " (± 1.5 mm)
Face Variation from Rectangular (Maximum out of Square) (Non-Cumulative)	$\pm\frac{1}{16}$ " (± 1.5 mm)
Heads / Calibrated Edges.....	$\pm\frac{1}{16}$ " (± 1.5 mm)
Quirk Miters (Width of Nose) up to $\frac{1}{4}$ ".....	-0, +25% of dim
Quirk Miters (Width of Nose) over $\frac{1}{4}$ ".....	-0, $+\frac{1}{16}$ " (-0, +1.5 mm)
Location of Back Anchors.....	$\pm\frac{1}{8}$ " (± 3 mm)
Depth of Back Anchors.....	-0, $+\frac{1}{16}$ " (-0, +1.5 mm)
Location of Holes for Precast Anchors	$\pm\frac{1}{4}$ " (± 6 mm)
Hole Depth for Precast Anchors.....	$\pm\frac{1}{16}$ " (± 1.5 mm)
Anchor Slots - From Face to Centerline of Slot	$\pm\frac{1}{16}$ " (± 1.5 mm)
Anchor Slots - Lateral Placement	$\pm\frac{1}{4}$ " (± 6 mm)
Anchor Slots - Width.....	$\pm\frac{1}{16}$ " (± 1.5 mm)
Anchor Slots - Depth at Maximum	$\pm\frac{1}{8}$ " (± 3 mm)
Anchor Holes - From Face to Centerline of Hole.....	$\pm\frac{1}{16}$ " (± 1.5 mm)
Anchor Holes - Lateral Placement.....	$\pm\frac{1}{8}$ " (± 3 mm)
Anchor Holes - Diameter.....	$\pm\frac{1}{16}$ " (± 1.5 mm)
Anchor Holes - Depth.....	$\pm\frac{1}{8}$ " (± 3 mm)
Anchor Sinkages - Depth.....	-0, $+\frac{1}{8}$ " (-0, +3 mm)
Continuous Kerfs - From Face to Centerline of Kerf	$\pm\frac{1}{16}$ " (± 1.5 mm)
Continuous Kerfs - Maximum Bow in 4'-0" (1.2m).....	$\pm\frac{1}{16}$ " (± 1.5 mm)
Continuous Kerfs - Width.....	$\pm\frac{1}{16}$ " (± 1.5 mm)
Continuous Kerfs - Depth.....	$-\frac{1}{16}$ ", $+\frac{1}{8}$ " (-1.5 mm, +3 mm)
Rebated Kerf Elevation of Bearing Surface.....	$\pm\frac{1}{16}$ " (± 1.5 mm)
Bearing Checks - Elevation of Bearing Surface.....	$\pm\frac{1}{16}$ " (± 1.5 mm)
Bearing / Clearance Checks - Lateral Location	$\pm\frac{1}{2}$ " (± 13 mm)
Bearing / Clearance Checks - Setback from Face	$\pm\frac{1}{16}$ " (± 1.5 mm)

Comment: **TOLERANCES AND THICKNESSES:** The suggested minimum nominal thickness for exterior veneer is as follows:

Bush hammered finish.....	4" (102 mm)
Pointed finish.....	4" (102 mm)

For all other finishes a minimum nominal thickness of granite panel is to be determined pending analysis of the following criteria:

- A. Piece Size
- B. Face Finish
- C. Anchoring Method & Location
- D. Structural Design Load Requirements

Comment: It is more economical if the granite panel thickness coincides with one of the industry standard nominal thicknesses of 4" (102 mm), 3" (76 mm), 2" (51 mm), 1 5/8" (41 mm) or 1 1/4" (32 mm).

3.2 Flatness Tolerances

Variation from true plane, or flat surfaces, shall be determined by a 4' dimension in any direction on the surface.

Such variations on polish, hone, and fine rubbed surfaces shall not exceed tolerances listed below or 1/3 of the specified joint width, whichever is greater. On surfaces having other finishes, the maximum variation from true plane shall not exceed the tolerance listed below or 1/2 of the specified joint width, whichever is greater.

Polished, honed or fine rubbed finishes.....	1/16" (1.5 mm)
Sawn, 4-cut, 6-cut, and 8-cut finishes	1/8" (3 mm)
Thermal and coarse stippled finishes.....	3/16" (5 mm)
Pointed or other rough cut finishes	1" (25 mm)

3.3 Beds and Joints

Comment: **BED AND JOINT WIDTH:** The minimum recommended joint width is 3/8" for pieces with sawn beds and joints. Larger joint widths are required if pieces have split or otherwise rough cut beds and/or joints.

Pieces shall be bedded and jointed as shown on the approved shop drawings, and bed and joint surfaces shall be cut as follows:

1. Bed and joint surfaces shall be sawn through the full thickness of the granite piece. Bed and joint surfaces shall be within ±3° of 90° to the face of the piece unless otherwise specified.

Comment: This specification is recommended for most applications where a 3/8" bed or joint width specification is used.

2. Beds and joints shall be sawn or cut full square 2" back from the face and from that point may fall under square not more than 1" in 12". Both beds and joints shall be reasonably free of large depressions.

Comment: This or similar specification is recommended for pieces 4" or more in thickness when cost savings may be achieved by eliminating the above full sawn specification)

3. Beds and joints shall be split or rough sawn generally square with the face and may fall under square with the face not more than 2" in 12".

Comment: This or similar specification is recommended only for projects with bed and joint widths of 3/4" or more where a split face or other rough sawn appearance is specified.

3.4 Backs of Pieces

Comment: **SAWN BACKS:** Because of physical characteristics, most granite cannot be split to a thickness less than one-third the lesser face dimension. Consequently sawn backs (the first specification) should be specified for most veneers, and are frequently specified also for thicker ashlar, because of design considerations.

A. Installer's Option of one of the following:

1. Backs of all pieces shall be sawn to approximately true planes.

Comment: Recommended for most building granite specifications.

2. Backs of all pieces may be either rough or natural quarry split to provide surfaces, which vary not more than 1" in 12" from true plane and not more than 2" from their specified thickness.

Comment: Recommended for structural bridge piers, 4" or more split face pieces, or other installations of thicker pieces where a sawn back is not required.

B. Fabricate stone to maintain minimum clearance of 1" between backs of stone units and surfaces behind stone.

C. All tolerances listed assume panels 4" or less in thickness, not more than 5' x 5', and sawn on all six sides.

Comment: For thicker pieces, very large pieces, or pieces with split, pointed or rough sawn faces, backs, beds or joints, tolerances generally must be increased. Consult with suppliers on tolerances for special pieces.

D. A minimum cavity void of approximately 1" (25 mm) shall be maintained behind ashlar or dimensional granite used as a veneer. This cavity should be adequately ventilated and wept to eliminate the accumulation of moisture behind the granite veneer.

Comment: The NBGQA recommends a minimum factor of safety of 3.0 to 1 for granite panels and a minimum factor of safety of 4.0 to 1 for all anchorage assemblies.

3.5 Fabrication, General Requirements

- A. Mouldings, washes and drips shall be constant in profile throughout their length, in strict conformity with details shown on approved shop drawings.
- B. Dress joints straight and at 90 degree angle to face. Shape beds to fit supports.
- C. Anchor Provision: Cut and drill sink provisions and holes in stone for anchors, fasteners, supports, and lifting devices as indicated or needed to set stone in place.
- D. Allow room for expansion of the anchoring devices where necessary.
- E. Where liners are required on the back of panels, secure by means of mechanical anchors. Comply with referenced standards.
- F. Finish exposed faces and edges of stone, except sawed reveals, to comply with requirements indicated for finish and to match final samples and mockups.
- G. Joint Width: Cut stone to produce uniform joints $\frac{3}{8}$ " or as shown on Drawings.
- H. Provide chases, reveals, reglets, openings, and similar features as required to accommodate adjacent work.
 - I. Grade and mark stone to achieve uniform appearance when installed. Inspect finished stone units at fabrication plant. Replace defective units.

3.6 Incidental Cutting and Drilling

Panels in excess of 100 pounds (45 kg) may include, at installer's option, lifting clamp dimples, Lewis holes, or other provisions as required to accommodate the lifting device(s) utilized by the installing contractor. Lifting holes in the top beds of panels or other locations where moisture collection is likely to occur shall be filled with non-expanding grout or high-modulus elastomeric sealant after installation and final alignment.

4. SHIPPING AND HANDLING

4.1 Packing and Loading

Finished granite shall be carefully packed and loaded for shipment using all reasonable and customary precautions against damage in transit. No material which may cause staining or discoloration shall be used for blocking or packing.

Comment: STAINING: Granite is highly resistant to staining, but should be protected from certain elements, such as wet (green) wood, oils, mud, rust, construction waste, and asphalt compounds. Contact supplier for proper remedies to staining problems that occur.

4.2 Site Storage

Upon receipt at the building site or storage yard, the granite shall be stacked on timber or platforms at least 3" above the ground, and extreme care shall be taken to prevent staining during storage. If storage is to be for a prolonged period, polyethylene or other suitable plastic film shall be placed between any wood and finished surfaces, and shall be used also as an overall protective covering. All holes shall be plugged during freezing weather to prevent the accumulation of water. Salt shall not be used for melting of ice formed in Lewis holes or on pieces, or for any purpose involving its contact with the granite.

5. STONE INSTALLATION

Proceed with the installation of the stonework in accordance with Drawings and using skilled mechanics capable of proper handling of the setting of the stone and able to field cut where necessary with sharp and true edges.

Set stone with joints uniform in appearance and stone edges and faces aligned to tolerances indicated.

Clean surfaces that are dirty or stained. Scrub with fiber brushes, and then rinse with clear water.

Provide expansion, control, and pressure-relieving joints of widths and at locations shown on Drawings.

6. CLEANING AND PROTECTION

6.1 Cleaning

Granite shall be shop cleaned at the time of final fabrication. After installation and pointing or caulking are completed, the contractor shall carefully clean the granite, removing all dirt, excess mortar, weld splatter, stains, and/or other site incident defacements.

Stainless steel wire brushes or wool may be used, but the use of other wire brushes or of acid or other solutions which may cause discoloration is expressly prohibited. Fabricator should be contacted before cleaners other than detergents are used.

6.2 Protection of Finished Work

After the granite work is installed, the granite shall be properly and adequately protected from damage. Boxing or other suitable protection shall be provided wherever required, but no lumber which may stain or deface the granite shall be used. All nails used shall be non-corrosive.

All granite work in progress shall be protected at all times during construction by use of a suitable strong, impervious film or fabric securely held in place.

COLOR CLASSIFICATION of Granites Quarried by Association Members

COLOR & VARIEGATION		GRAIN	NAME OF GRANITE	QUARRY	QUARRIED BY
White	All White	Medium	Silver Cloud	Conyers, GA	Fletcher Granite
		Medium	Bethel White®	Bethel, VT	Rock of Ages Corp.®
		Medium	Gardenia White®	Rockwell, NC	Rock of Ages Corp.
		Medium	Iridian™	Isle, MN	Cold Spring Granite Co.®
		Fine	Classic White	Elberton, GA	North Carolina Granite Corp.
		Fine	Kitledge	Milford, NH	Fletcher Granite
		Medium	Mount Airy Granite®	Mount Airy, NC	North Carolina Granite Corp.
		Coarse	Greene County Granite®	Greene County, GA	North Carolina Granite Corp.
		Coarse	Rockville White®	Rockville, MN	Cold Spring Granite Co.
		Fine	Royston White	Royston, GA	Georgia Stone Industries, Inc.
		Fine	Sierra White™	Raymond, CA	Cold Spring Granite Co.
		Coarse	Coral Gray	Heath Spring, SC	Georgia Stone Industries, Inc.
		Fine	Midnight Gray	Lexington, GA	Georgia Stone Industries, Inc.
		Coarse	Oconee	Greensboro, GA	Georgia Stone Industries, Inc.
Fine	Chelmsford	Chelmsford, MA	Fletcher Granite		
Gray	Light Gray	Fine to Medium	Chelmsford Gray	Westford, MA	Fletcher Granite
	Light to Medium Gray	Coarse	Coral Gray	Kershaw, SC	Georgia Stone Industries, Inc.
	Mauve/Gray	Coarse	Deer Isle®	Crotch Island, ME	Georgia Stone Industries, Inc.
	Dark Gray	Fine	Georgia Gray	Elberton, GA	North Carolina Granite Corp.
	Light Gray	Medium	Iridian™	Isle, MN	Cold Spring Granite Co.
	Medium Gray	Fine to Medium	Kitledge Gray	Milford, NH	Fletcher Granite
	Light Gray	Fine	Midnight Gray	Oglethorpe Co., GA	Georgia Stone Industries, Inc.
	Light Gray	Medium	Mount Airy Granite®	Mount Airy, NC	North Carolina Granite Corp.
	Light to Medium Gray	Fine	Barre Gray®	Barre, VT	Rock of Ages Corp.
	Light to Medium Gray	Coarse	Rockville White®	Rockville, MN	Cold Spring Granite Co.
	Very Light Gray	Fine	Stanstead®	Stanstead, Quebec	Rock of Ages Corp.
	Variiegated Gray, Pink/Black	Medium	Tapestry	Milford, NH	Fletcher Granite
	Variiegated Gray, White/Black	Medium	Silver Cloud Imperial™	Conyers, GA	Fletcher Granite
	Dark Gray	Fine to Medium	Wisconsin Silver Grey	Amberg, WI	Anderson Brothers & Johnson
	Dark Gray/Light Gray Swirls	Fine	Jet Mist™	Rapidan, VA	Georgia Stone Industries, Inc.
	Gray Buff with Black	Coarse	Kershaw®	Heath Spring, SC	Georgia Stone Industries, Inc.
	Pale Buff/Gray	Coarse	Oconee	Greensboro, GA	Georgia Stone Industries, Inc.
Buff	Gray Buff & Very Pale Pink	Medium	Texas Pearl	Granite Shoals, TX	Cold Spring Granite Co.
	Gold with Black	Coarse	Greene County Granite®	Greene Co., GA	North Carolina Granite Corp.
	Reddish Buff	Fine	Lac Du Bonnet®	Lac Du Bonnet, Man.	Cold Spring Granite Co.
	Gray Buff	Fine to Medium	Mason	Mason, NH	Fletcher Granite
	Pale Buff/Gray	Coarse	Oconee	Greene Co., GA	Georgia Stone Industries, Inc.
	Gray Buff with Black	Coarse	Texas Pearl	Granite Shoals, TX	Cold Spring Granite Co.
	Gray Buff	Coarse	Coral Gray	Heath Spring, SC	Georgia Stone Industries, Inc.
Gray Buff with Black	Coarse	Kershaw®	Heath Spring, SC	Georgia Stone Industries, Inc.	
Beige	Beige, Pink	Medium	Bellingham	Bellingham, MN	Dakota Granite Co.
	Pale Beige/Black	Coarse	Ellenberg Oconee	Greene Co., GA	Georgia Stone Industries
	Gold with Black	Coarse	Greene County Granite®	Greene Co., GA	North Carolina Granite Corp.
	Beige/Black & White Specks	Coarse	Kershaw®	Heath Spring, SC	Georgia Stone Industries, Inc.
	Beige Gray	Coarse	Rockville Beige	Rockville, MN	Cold Spring Granite Co.
	Beige	Medium	Sunset Beige	Marble Falls, TX	Cold Spring Granite Co.
	Beige, Pink	Coarse	Texas Pink	Marble Falls, TX	Cold Spring Granite Co.
	Beige, Pink & Black Specks	Medium	Sierra Rose	Wausau, WI	Anderson Brothers & Johnson
Pale Beige/Black	Coarse	Greene County	Greensboro, GA	Georgia Stone Industries, Inc.	
Beige	Medium to Coarse	Milford Pink	Hopkinton, MA	Fletcher Granite	
Pink	Gray Pink with Black	Medium to Coarse	Diamond Pink®	St. Cloud, MN	Cold Spring Granite Co.
	Variiegated	Coarse	Greene County Granite®	Greene Co., GA	North Carolina Granite Corp.
	Pink	Medium	Lac Du Bonnet®	Lac Du Bonnet, Man.	Cold Spring Granite Co.
	Brownish Pink	Coarse	Madison Pink	Madison, NH	Fletcher Granite
	Beige Pink	Medium to Coarse	Milford Pink	Hopkinton, MA	Fletcher Granite
	Rich Pink	Coarse	Pink Kershaw	Kershaw, SC	Georgia Stone Industries, Inc.
	Variiegated Pink & Black	Fine	Rainbow®	Morton, MN	Cold Spring Granite Co.
	Pink	Fine	Regal Rose®	Guenette, Quebec	Rock of Ages Corp.
	Rich Pink	Fine	Salisbury Pink®	Salisbury, NC	Rock of Ages Corp.
	Dark Pink/Gray	Coarse	Sherwood	Crotch Island, ME	Georgia Stone Industries, Inc.
	Pink/Beige	Medium	Sparta Pink	Sparta, GA	Georgia Stone Industries, Inc.
	Beige Pink	Coarse	St. Albans Pink	Kershaw, SC	Georgia Stone Industries, Inc.
	Beige Pink	Coarse	Texas Pink	Marble Falls, TX	Cold Spring Granite Co.
	Pink w/Black & White	Coarse	Texas Rose	Marble Falls, TX	Georgia Stone Industries, Inc.
	Beige Pink	Coarse	South Carolina Pink	Greensboro, SC	Georgia Stone Industries, Inc.
Pink	Medium	Milford Pink	Milford, MA	Georgia Stone Industries, Inc.	
Pink/Gray	Coarse	Deer Isle®	Crotch Island, ME	Georgia Stone Industries, Inc.	
Blue	Grayish Blue	Medium	Lake Placid Blue®	Jay, NY	Cold Spring Granite Co.
	Blue	Fine	Topaz	Elberton, GA	Missouri Red Quarries, Inc.
	Dark Blue	Medium to Coarse	Boca Blue	Quebec, Canada	North Carolina Granite Corp.
Green	Green	Medium	Mountain Green®	Jay, NY	Cold Spring Granite Co.
	Green	Medium	Lake Superior Green®	Isabella, MN	Cold Spring Granite Co.
	Pale Green to Pale Yellow	Coarse	Kenoran Sage	Kenora, Ont.	Cold Spring Granite Co.
	Dark Green	Medium to Coarse	Timberland Green	Quebec, Canada	North Carolina Granite Corp.

COLOR CLASSIFICATION of Granites Quarried by Association Members

COLOR & VARIEGATION	GRAIN	NAME OF GRANITE	QUARRY	QUARRIED BY
Gold Pale Green to Light Gold	Medium	Crystal Gold	Kenora, ONT	Cold Spring Granite Co.
Brown Brownish Red Reddish Brown Brownish Pink to Red Bluish Brown Reddish Brown Variegated Brownish Red Brownish Red Brownish Red Brownish Red Light Brownish Red Reddish Brown Variegated Brownish Red	Medium Medium Medium Medium to Coarse Medium Medium to Coarse Medium Medium Medium Medium Medium Medium Medium	Carnelian® Cedar Rose Royal Auburn® Dakota Mahogany Dakota Mahogany Canadian Caledonia Dark Canadian Caledonia Med Whetstone Brown Velvet Sierra Rose Dakota Mahogany Dakota Rose®	Milbank, SD Concord, NC Kenora, Ont. Milbank, SD Milbank, SD Quebec, Canada Quebec, Canada Milbank, SD Milbank, SD Wausau, WI Milbank, SD Milbank, SD	Cold Spring Granite Co. North Carolina Granite Corp. Cold Spring Granite Co. Dakota Granite Co. Georgia Stone Industries, Inc. North Carolina Granite Corp. North Carolina Granite Corp. Dakota Granite Co. Dakota Granite Co. Anderson Brothers & Johnson Georgia Stone Industries, Inc. North Carolina Granite Corp.
Red Variegated Brownish Red Variegated Reddish Brown Variegated Reddish Brown Copper Red Brownish Red Brownish Red Brownish Red Brownish Red Bright Red Medium Red Brownish Red Bright Red Variegated Brownish Red Pinkish Red Pinkish Red Deep Red Deep Dark Red Reddish Brown Variegated	Medium Coarse Coarse Medium Medium Medium Medium to Coarse Medium Medium Coarse Medium Medium Medium Coarse Medium to Coarse Coarse Fine to Medium Fine to Medium Medium	Agate American Bouquet American Mahogany Azalea Brown Velvet Carnelian® Cedar Rose Dakota Mahogany Missouri Red Missouri Red Prairie Mountain Radiant Red® Sequoia Sunset Red® Loyal Valley Wausau Red Wisconsin Red Dakota Mahogany	Ortonville, MN Milbank, SD Milbank, SD Llano, TX Milbank, SD Milbank, SD Concord, NC Milbank, SD Ironton, MO Graniteville, MO Llano, TX Fredericksburg, TX Milbank, SD Marble Falls, TX Llano, TX Wausau, WI Wausau, WI Milbank, SD	Cold Spring Granite Co. Dakota Granite Co. Cold Spring Granite Co. Cold Spring Granite Co. Dakota Granite Co. Cold Spring Granite Co. Dakota Granite Co. Missouri Red Quarries, Inc. Georgia Stone Industries, Inc. Cold Spring Granite Co. Cold Spring Granite Co. Georgia Stone Industries, Inc. Cold Spring Granite Co. Cold Spring Granite Co. Anderson Brothers & Johnson Anderson Brothers & Johnson Georgia Stone Industries, Inc.
Black Dark Gray Dark Gray Black w/Mild White Veining Black w/Mild Gray Swirls Black w/Charcoal Shading Dark Brown/Black Black Black w/Mild Gray Swirls	Fine Fine Fine Fine Fine to Medium Medium Fine Fine	Academy Black® Charcoal Black® American Black® Jet Mist™ Addison Black Royal Sable® Mesabi Black® Virginia Mist	Clovis, CA St. Cloud, MN St. Peters, PA Rapidan, VA Addison, ME Milbank, SD Babbitt, MN Culpepper, VA	Cold Spring Granite Co. Cold Spring Granite Co. Rock of Ages Corp. Georgia Stone Industries, Inc. Fletcher Granite Cold Spring Granite Co. Cold Spring Granite Co. North Carolina Granite Corp.

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